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September 7, 2003

Mr. John Bayer  
Polysum Technologies  
P.O. Box 84051  
Baton Rouge, La 70884

Dear Mr. Bayer,

As you know, Union Pacific Railroad has made the largest commitment to plastic composite ties than any other Class 1 US railroad. We believe that alternatives to wood that can be conventionally fastened (spikes) is becoming more of a requirement each day and therefore has become part of the UP's overall tie replacement strategy in high decay applications of our railroad. UP is interested in a broader supply base for plastic composite ties as the current base with fully developed products is insufficient to meet UP's demands much less the industry's. UP has demand for 150,000 to 200,000 ties next year, up from 75,000 this year. Our overall wood tie demand exceeds 4,000,000 ties.

Other than our current supplier, Polysum is the only plastic composite tie that has been approved for installation by UP's RTW group. Ed Kohake of UP's Research Testing and Welding group recently inspected both installations of the Polysum ties installed in our main tracks near Avondale, Louisiana. The ties installed in both locations were performing well. The properties you furnished from the early lab test of the Polysum ties are attractive and do appear to exceed some of those of our current approved product. These properties allowed us to approve the installation of the test ties near Avondale. We do encourage you to arrange for complete testing of full-scale ties at University of Illinois as soon as possible.

The trapezoidal shape of your heavy axle load is interesting and could ultimately reduce the numbers of ties required to adequately support the rail.

UP continues to search for alternatives to wood ties for certain applications. Although I receive numerous calls each month from prospective suppliers of composite ties, most of these do not understand the railroad environment or have unrealistic pricing structures. If the Polysum tie continues to perform well, lab testing confirms the initial results and the price is attractive, UP Engineering would show much interest in the Polysum tie for future installations.

I have copied both Mr. Tom Homes and Mr. Gary Hunter from UP's Supply department. Please keep UP informed as your business development continues.

Regards,

A handwritten signature in cursive script, appearing to read "David A. Connell".

David A Connell  
General Director-Engineering Technology  
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c:  
Tom Holmes  
Gary Hunter  
Russell Lloyd  
Ed Kohake